

ARG81188 Nitric Oxide Synthase Assay Kit

Package: 100 tests
Store at: 4°C, -20°C

Summary

Product Description	ARG81188 Nitric Oxide Synthase Assay Kit is a detection kit for the quantification of Nitric Oxide Synthase activity in serum, plasma, whole blood, cell culture media, tissue or cell lysates.
Tested Reactivity	Hu, Ms, Rat, Mamm
Tested Application	FuncSt
Target Name	Nitric Oxide Synthase
Conjugation	Un-conjugated
Sensitivity	0.25 U/L
Sample Type	Serum, plasma, whole blood, cell culture media, tissue or cell lysates.
Standard Range	0.25 - 25 U/L
Sample Volume	20 µl
Alternate Names	Constitutive NOS; NOS type III; Nitric oxide synthase, endothelial; Endothelial NOS; eNOS; EC-NOS; NOSIII; cNOS; EC 1.14.13.39; ECNOS

Application Instructions

Application Note	Please note that this kit does not include a microplate.
Assay Time	~ 2 hour

Properties

Form	Liquid
Storage instruction	Store components at 4°C or -20°C. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	NOS3
Gene Full Name	nitric oxide synthase 3 (endothelial cell)
Background	Nitric oxide is a reactive free radical which acts as a biologic mediator in several processes, including neurotransmission and antimicrobial and antitumoral activities. Nitric oxide is synthesized from L-arginine by nitric oxide synthases. Variations in this gene are associated with susceptibility to coronary spasm. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009]
Function	Produces nitric oxide (NO) which is implicated in vascular smooth muscle relaxation through a cGMP-mediated signal transduction pathway. NO mediates vascular endothelial growth factor (VEGF)-induced angiogenesis in coronary vessels and promotes blood clotting through the activation of platelets. Isoform eNOS13C: Lacks eNOS activity, dominant-negative form that may down-regulate eNOS activity by forming heterodimers with isoform 1. [UniProt]

PTM

Phosphorylation by AMPK at Ser-1177 in the presence of Ca(2+)-calmodulin (CaM) activates activity. In absence of Ca(2+)-calmodulin, AMPK also phosphorylates Thr-495, resulting in inhibition of activity (By similarity). Phosphorylation of Ser-114 by CDK5 reduces activity.